

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-6 (cancelled).

Claim 7 (currently amended): An assay for [screening a test agent and] selecting [an agent] a compound useful for treating epilepsy or other neurological disorders which modulates inactivation of a sodium channel [involved in epilepsy] comprising:

- a) [a recombinant SCN1A, SCN2A or SCN3A gene] an SCN1A nucleic acid sequence which encodes an [alpha subunit of said] SCN1A sodium channel or a functional fragment thereof; and
- b) assaying a function of said sodium channel;

wherein [an agent can be] said compound is selected when [an observable] a difference is observed between the inactivation of said sodium channel in the presence of [said] a test agent, as compared to in the absence thereof [, and wherein a malfunction of said sodium channel is associated with epilepsy].

Claim 8 (currently amended): An assay for [screening a test agent and] selecting [an agent] a compound useful for treating epilepsy or other neurological disorders which modulates the activity of a sodium channel [involved in epilepsy] comprising:

- a) [a recombinant SCN1A, SCN2A or SCN3A gene] an SCN1A nucleic acid sequence which encodes an [alpha subunit of said] SCN1A sodium channel or functional fragment thereof; and
- b) assaying [the] an activity of said sodium channel;

wherein [an agent can be] a compound is selected when [an observable] a difference is observed between the activity of said sodium channel in the presence of said test agent, as

compared to in the absence thereof [, and wherein a malfunctioning of said sodium channel is associated with epilepsy].

Claim 9 (cancelled).

Claim 10 (currently amended): A method for identifying, from a library of test compounds, a compound [with] having a therapeutic effect on epilepsy or other neurological disorders comprising:

- a) providing a screening assay [comprising] which comprises a measurable [biological activity of SCN1A, SCN2A or SCN3A protein or gene] SCN1A biological activity;
- b) contacting said screening assay with a test compound; and
- c) detecting if said test compound modulates [the biological activity of SCN1A, SCN2A or SCN3A protein or gene] said SCN1A biological activity;

wherein a test compound which modulates said biological activity is identified as a compound with said therapeutic effect.

Claims 11-13 (cancelled).

Claim 14 (new): The method of claim 10, wherein said assay comprises an expression vector comprising an SCN1A nucleic acid sequence which encodes said sodium channel or functional fragment thereof.

Claim 15 (new): The method of claim 7, wherein said SCN1A nucleic acid sequence is a mammalian SCN1A sequence.

Claim 16 (new): The method of claim 8, wherein said SCN1A nucleic acid sequence is a mammalian SCN1A sequence.

Claim 17 (new): The method of claim 14, wherein said SCN1A nucleic acid sequence is a mammalian SCN1A sequence.

Claim 18 (new): The method of claim 16, wherein said mammalian SCN1A nucleic acid sequence is selected from among mouse, rat and human SCN1A.

Claim 19 (new): The method of claim 17, wherein said mammalian SCN1A nucleic acid sequence is human.

Claim 20 (new): The method of claim 19, wherein said SCN1A nucleic acid sequence is a human sequence which comprises a sequence selected from among SEQ ID NOs: 189-192, or allelic variant thereof.

Claim 21 (new): The method of claim 20, wherein said SCN1A nucleic acid sequence is selected from among the sequences as set forth in SEQ ID NOs: 1-2 and 5-32, or allelic variant thereof.

Claim 22 (new): The method of claim 8, wherein said SCN1A nucleic acid sequence encodes the amino acid sequence as set forth in SEQ ID NO: 3 or SEQ ID NO: 4, or a fragment thereof.

Claim 23 (new): The method of claim 20 wherein said sequence identity has greater than 95% sequence identity thereto.

Claim 24 (new): The method of claim 8 wherein said assaying is performed in a cell-free system.

Claim 25 (new): The method of claim 8 wherein said assaying is performed with a whole cell.

Claim 26 (new): The method of claim 10 wherein said screening assay is a cell-free system.

Claim 27 (new): The method of claim 10 wherein said screening assay is a whole cell system.

Claim 28 (new): The method of claim 8, wherein said SCN1A nucleic acid sequence is comprised in an expression vector.

Claim 29 (new): The method of claim 28 wherein said expression vector is comprised in a cell.

Claim 30 (new): The method of claim 8, wherein said SCN1A sequence is a recombinant form of SCN1A.